

Claims defining the inventions

'1 A lock for a displaceable wing supported adjacent an opening and having a closing edge that is adjacent an element defining the opening when the wing is closed, said lock including engageable means mountable to the opening and including an entry aperture connected to an offset aperture of reduced width, and a lock body mountable to the wing and including a casing defined in part by a front edge and an angularly displaceable bolt having a leading edge and at least one side recess extending from the leading edge to define in part at least one relatively protruding side shoulder, said bolt being displaceable about an axis orthogonal to the face of the wing and intersecting the casing to protrude from the front edge of the casing to engage the engageable means whereby to restrain the wing from being displaced in an opening direction, said engagement being characterized by engagement between the at least one side shoulder and the offset aperture, said engagement restraining the bolt and engageable means against relative displacement in a horizontal direction parallel the face of the wing and in a horizontal direction orthogonal to the face of the wing.

'2 A lock according to Claim 1, wherein the apertures provides free passage to the bolt when the bolt and aperture are relatively disposed within a vertical range of dispositions and within a range of gap between the aperture and lock body, said engageable means and bolt being engageable when the bolt and aperture are disposed within a vertical range of relative dispositions and within a range of gap between the aperture and lock body.

'3 A lock according to Claim 1, wherein the entry aperture has a width substantially the same as the bolt and including an additional incremental width to provide working clearance between the bolt and aperture edge

'4 A lock according to Claim 1, wherein the side recess and protruding shoulder are defined in part by a recess radius.

'5 A lock according to Claim 1, wherein the protruding shoulder is defined in part by an outer radius.

'6 A lock according to Claim 1, wherein engagement is characterized by the relatively protruding side shoulder overlapping the edge of the offset aperture.

'7 A lock according to Claim 1, wherein the leading edge is substantially horizontal when the bolt is engaged with the engageable means.

'8 A lock according to any one of the above claims, wherein the engageable means comprises a strike plate having a wing and the wing comprises a hinged door.

'9 A lock according to any one of the above claims, wherein the bolt comprises an outwardly biased latch bolt characterized by a pre-latching, partly extended position and the engageable means comprises a strike plate having a wing.

'10 A lock according to Claim 9, wherein the latchbolt leading edge at the outer radius is radiused, curved, bevelled or otherwise profiled on both sides to enable the bolt to be engaged on either side to be inwardly displaced by the strike plate during latching whereby to be suitable for both left hand and right hand hinged doors.

'11 A lock according to Claim 10, wherein the strike plate has an entry aperture and an upper and lower offset recess whereby to render it suitable for both left hand and right hand hinged doors.

'12 A lock according to any one of the above claims, including a bolt having a side recess on both sides.

'13 A lock according to Claim 8, wherein the strike plate includes a first portion comprising a substantially planar portion that includes the apertures connected to an angled or curved wing and second portions comprising portions fixable to the opening by screws and connected to the first portion by bridge portions of reduced strength, said first portion and bridge portions being deformable by the bolt whereby to enable the offset aperture and surrounding material to be displaced horizontally away from the element defining in part the opening and fixable portions.

- '14 A lock according to Claim 12, wherein the deformation of the strike plate occurs at reduced forces whereby to enable the bolt to remain engaged with the strike plate without substantially affecting the integrity of the screw fixing in the opening.
- 5 '15 A lock substantially as described herein with reference to and as illustrated in the accompanying drawings.